

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A handling device of security data comprising:

an in-vehicle unit having a portable unit authenticating unit, a nonvolatile memory, [[and]] a general controller, and a data encryption controller;

a vehicle having the in-vehicle unit, ~~an in-vehicle system,~~ and a communication unit; and

a portable unit for giving a control instruction to the in-vehicle unit ~~system~~ of the vehicle through communication with the communication unit, wherein a first cipher key is stored in the portable unit and the in-vehicle unit,

wherein the portable unit transmits a signal encrypted with the first cipher key indicating a ~~[[the]]~~ ID of the portable unit to the vehicle,

the communication unit receives the transmission signal,

the portable unit authenticating unit authenticates as to whether the signal is a transmission signal that is transmitted from a predetermined portable unit based on a comparison between the reception signal encrypted with the first cipher key and data indicating the ID of the portable unit stored in the nonvolatile memory or not,

the general controller ~~control-unit~~ causes the in-vehicle unit ~~system~~ to perform the control instructions if the portable unit authenticating unit judges that the signal is a transmission signal that is transmitted from a predetermined portable unit,

the [[an]] data encryption controller [[unit]] for encrypting security data of the vehicle with a second cipher key is interposed between the general controller and the nonvolatile memory of the in-vehicle unit, and

the security data is encrypted by the data encryption controller with the second cipher key and stored into the nonvolatile memory according to an [[the]] instruction from the general controller when the in-vehicle unit is set into a security data register mode.

2. (Currently Amended) The handling device of security data, according to Claim 1, wherein the second cipher key is stored in a ROM ~~another nonvolatile memory~~ that is different from the nonvolatile memory storing the encrypted signal of the security data.

3. (Currently Amended) The handling device of security data, according to Claim 2, wherein the security data includes a portable unit ID~~[[,]]~~ and the nonvolatile memory is an EEPROM, ~~and another nonvolatile memory is a ROM.~~

4. (Previously Presented) The handling device of security data, according to Claim 3, wherein an in-vehicle unit ID is stored in the EEPROM in addition to the portable unit ID.

5. (Currently Amended) A handling method of security data of a vehicle provided with an in-vehicle unit having a portable unit authenticating unit, a first nonvolatile memory, a general controller and a data encryption controller, a vehicle having the in-vehicle unit, a door locking mechanism, and a communication unit, and

a portable unit for locking or unlocking a door locking mechanism of the vehicle through communication with the communication unit, wherein a first cipher key is stored in the portable unit and the in-vehicle unit, the method comprising:

transmitting, from the portable unit, instructions for locking/ unlocking the door locking mechanism of the vehicle and a signal encrypted with the first cipher key indicating a [[the]] ID of the portable unit; and

receiving the signal encrypted with the first cipher key by the communication unit provided in the vehicle;

the portable unit authenticating unit authenticating as to whether the signal is a transmission signal that is transmitted from a predetermined portable unit based on a comparison between data indicating the ID of the portable unit stored in the [[tine]] nonvolatile memory and data indicating the ID of the portable unit contained in the signal transmitted from the portable unit or not;

the general controller ~~control unit~~ provided in the in-vehicle unit causing the door lock mechanism to be locked/unlocked if the portable unit authenticating unit judges that the signal is a transmission signal that is transmitted from a predetermined portable unit;

~~encrypting the security data with a cipher key in an encryption unit provided between the controller and the first nonvolatile memory of the in-vehicle unit; and~~

~~storing the encrypted signal into the first nonvolatile memory and storing the cipher key into a second nonvolatile memory;~~

wherein [[an]] the data encryption controller [[unit]] for encrypting the ID of the portable unit with a second cipher key is interposed between the general controller and the nonvolatile memory of the in-vehicle unit, and

the ID of the portable unit contained in the signal transmitted from the portable unit is encrypted by the data encryption controller with the second cipher key and stored into the nonvolatile memory according to an ~~[[the]]~~ instruction from the general controller when the transmission signal is received from the portable unit after setting the in-vehicle unit into an ID register mode.

6. (Currently Amended) The handling device of security data according to claim 1, wherein the data encryption controller ~~[[unit]]~~ decodes encrypted data.

7. (Currently Amended) The handling method device of security data according to claim 5, wherein the second cipher key is stored in a ROM ~~another nonvolatile memory~~, which is not the aforementioned nonvolatile memory.